TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2017-05-04-08** **Date: 07-05-17**
Customer	:	Assistant Executive Engineer, Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Project Name	:	Providing Improvements to park at chikkabettahalli BHEL Layout near Amba Bhavani Temple in Attur ward no:03
Agency	:	Sri.N.N.Srinivasaiah, No:2405, E-Block, Sahakar Nagara, Bangalore.
Customer Reference	:	EE(YNK.D)E-PMT-07/W.O/18/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	04-05-17
Sample ID No	:	2017-05-04-08-02
Sample Type/ Size	:	20mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	04-05-17

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:

Total weight taken : 5000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	223	223	4.5	95.5	90-100
3	10 mm	2435	2658	53.2	46.8	25-55
4	4.75 mm	2100	4758	95.2	4.8	0-10
5	Pan	242	5000	100	0	–

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TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2017-05-04-08** **Date: 07-05-17**

Sample ID No : 2017-05-04-08-02

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	12.4	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	11.8	
3	Specific Gravity	2.65	–
4	Bulk Density(Loose) (Kg/l)	1.54	–
5	Bulk Density(Compacted) (Kg/l)	1.59	–
6	Water Absorption(%)	0.22	–
7	Aggregate crushing Value(%)	22.6	Max 30% for Aggregates to be used in concrete for wearing Surface, In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface.
8	Aggregate Impact Value(%)	21.7	30% for Aggregates to be used in concrete for wearing Surface, 45% for Aggregates to be used in concrete other than for wearing Surface.

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Prepared by
Harshitha

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R KARTHIK RECHAN
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Quality Manager

End of Report

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TEST REPORT OF FINE AGGREGATE

Lab ID	:	**CP-2017-05-04-08** **Date: 07-05-17**
Customer	:	Assistant Executive Engineer, Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Project Name	:	Providing Improvements to park at chikkabettahalli BHEL Layout near Amba Bhavani Temple in Attur ward no:03
Agency	:	Sri.N.N.Srinivasaiah, No:2405, E-Block, Sahakar Nagara, Bangalore.
Customer's Reference	:	EE(YNK.D)E-PMT-07/W.O/18/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	04-05-17
Sample ID No	:	2017-05-04-08-03
Sample Type	:	Fine Aggregate
Reference to BIS codes	:	IS 383 : 2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1, 3) RA2012 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption
Date of test	:	04-05-17
Total weight taken	:	1000 grams

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	84	84	8.4	91.6	90-100	90-100	90-100	95-100
3	2.36 mm	154	238	23.8	76.2	60-95	75-100	85-100	95-100
4	1.18 mm	166	404	40.4	59.6	30-70	55-90	75-100	90-100
5	600 micron	178	582	58.2	41.8	15-34	35-59	60-79	80-100
6	300 micron	175	757	75.7	24.3	5-20	8-30	12-40	15-50
7	150 micron	163	920	92.0	8.0	0-10	0-10	0-10	0-15
8	Pan	80	1000	100.0	0.0	---	---	---	---

Result :The tested Sample Conforms to Grading Zone II

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TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-2017-05-04-08** **Date: 07-05-17**

Sample ID No : 2017-05-04-08-03

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	1.75	–
2	Specific Gravity	2.55	–
3	Material finer than 75 micron(%)	7.1	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

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Harshitha

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Quality Manager

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TEST REPORT OF CEMENT CONCRETE CUBES

Date: 15/05/2017

Lab ID	:	CP-2017-05-13-07
Customer	:	Assistant Executive Engineer, Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Project Name	:	Providing Improvements to park at chikkabettahalli BHEL Layout near Amba Bhavani Temple in Attur ward no:03
Agency	:	Sri.N.N.Srinivasaiah, No:2405, E-Block, Sahakar Nagara, Bangalore.
Customer's Reference	:	EE(YNK.D)E-PMT-07/W.O/18/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	13-05-17
Sample ID No	:	2017-05-13-07-01
Customer ID	:	PCC
Sample Type /Size	:	150X150X150 mm
Sample grade/Age	:	M15 / 7 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	15/05/2017

SL No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	PCC	M15	08/05/2017	15/05/2017	150.21 X 150.20 X 150.20	22562	8.324	302.3	13.4	13.5
2	PCC	M15	08/05/2017	15/05/2017	150.11 X 150.16 X 150.18	22541	8.267	295.3	13.1	
3	PCC	M15	08/05/2017	15/05/2017	150.24 X 150.28 X 150.29	22578	8.413	313.8	13.9	

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TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID	:	CP-2017-05-13-07 **Date: 05/06/2017**
Customer	:	Assistant Executive Engineer, Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Project Name	:	Providing Improvements to park at chikkabettahalli BHEL Layout near Amba Bhavani Temple in Attur ward no:03
Agency	:	Sri.N.N.Srinivasaiah, No:2405, E-Block, Sahakar Nagara, Bangalore.
Customer's Reference	:	EE(YNK.D)E-PMT-07/W.O/18/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	13-05-17
Sample ID No	:	2017-05-13-07-02
Customer ID	:	PCC
Sample Type /Size	:	150X150X150 mm
Sample grade/Age	:	M15 / 28 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	05/06/2017

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	PCC	M15	08/05/2017	05/06/2017	150.19 X 150.13 X 150.16	22548	8.267	387.8	17.2	17.7
2	PCC	M15	08/05/2017	05/06/2017	150.22 X 150.25 X 150.21	22571	8.354	399.5	17.7	
3	PCC	M15	08/05/2017	05/06/2017	150.14 X 150.16 X 150.20	22545	8.289	408.1	18.1	

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TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	CP-2017-05-04-08 **Date: 06-05-17**
Customer	:	Assistant Executive Engineer, Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Project Name	:	Providing Improvements to park at chikkabettahalli BHEL Layout near Amba Bhavani Temple in Attur ward no:03
Agency	:	Sri.N.N.Srinivasaiah, No:2405, E-Block, Sahakar Nagara, Bangalore.
Customer's Reference	:	EE(YNK.D)E-PMT-07/W.O/18/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	04-05-17
Sample ID No	:	2017-05-04-08/01
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 (Part 1,2 3,4,5, 6,11):1988 IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4 IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5 IS 4031 Part 3, Determination of Soundness, Clause 5,Clause 6 IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11,DETERMINATION OF DENSITY , Clause 6
Date of test	:	05-05-17

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	2.65	_
2	Finess by Air permeablity method (m^2/kg, Min)	275.5	225m^2/kg, Min
3	Density (gm/cc)	3.22	_
4	Standard Consistency (%)	27.5%	Not specified
5	Initial Setting time	155 minutes	Not less than 30 minutes
6	Final Setting time	250 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1.5mm	Not more than 10 mm

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TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2017-05-04-08** **Date: 02-06-17**
Customer	:	Assistant Executive Engineer, Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Address	:	Yelahanka Satellite Town Sub Division, BBMP, Bangalore.
Project Name	:	Providing Improvements to park at chikkabettahalli BHEL Layout near Amba Bhavani Temple in Attur ward no:03
Agency	:	Sri.N.N.Srinivasaiah, No:2405, E-Block, Sahakar Nagara, Bangalore.
Customer's Reference	:	EE(YNK.D)E-PMT-07/W.O/18/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	04-05-17
Sample ID No	:	2017-05-04-08/01
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 6, Determination of Compressive Strength, Clause 6
Date of test	:	05-05-17

Compressive Strength			
Sl.No.	**Physical properties**	**Results**	**Requirement as per IS 12269: 2013**
1	3 Days	28.5N/mm^2	Not less than 27 N/mm^2
2	7 Days	39.5N/mm^2	Not less than 37 N/mm^2
3	28 Days	54.5N/mm^2	Not less than 53 N/mm^2

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